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PLANNING & DEVELOPMENT SERVICES
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Hal H. Hart, A.I.C.P.
Director

MEMORANDUM

TO: Washington Association of Counties

FROM: Hal H. Hart, A.I.C.P.
Director, Whatcom County Planning and Development Services

DATE: June 6, 2005

RE: Watershed and Land Use Plan Integration in Whatcom County

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Introduction

The environmental permitting process for capitol projects in Washington State has become increasingly complex. Regulatory agencies are challenged to protect vulnerable resources including wetlands, potable water supplies, threatened salmon stocks, and water bodies such as Hood Canal and Puget Sound. Meanwhile, proponents of public works and other capitol improvement projects are devoting more time and money to the tasks of assessing impacts and designing mitigation for their projects at a time when public dollars for transportation and other infrastructure are in high demand. As a result, state and local governments are motivated to engage in a process that:

- Is more efficient and predictable.
- Provides greater certainty with respect to outcomes.
- Achieves the maximum public benefit for the dollars spent.

Integrating the permit process with statewide watershed planning efforts is one way to achieve these goals. This case study describes recent efforts in Whatcom County that, when aligned with a statewide initiative such as the Transportation Permit Efficiency and Accountability Committee (TPEAC), provide a road map for agencies, tribes, interest groups, and citizens to protect natural resources and streamline the permitting process.

Overview - An abbreviated look of how we got to where we are:

Legislation developed in the 1960s and 1970s created new directives for protecting and managing the environment. These initiatives came about in response to growing concerns over air and water pollution, loss of wetlands, drinking water contamination, hazardous materials spills, declining populations of species such as the bald eagle, and other issues. Instead of reflecting the interrelatedness of these ecological problems, our early attempts at environmental regulation were focused on addressing site-scale issues (e.g., control of point source discharges) and were rooted

in the idea that by requiring review and approval of specific activities (e.g., filling a wetland) we could effectively manage and protect environmental resources.

The passage of the Washington State Growth Management Act in 1990 was an initial step toward a holistic approach to environmental protection that incorporated comprehensive land use planning with management of critical areas, resource lands, and open space.

Today, our efforts to protect and mange the environment are focusing on watershed-based strategies. A growing number of scientific studies have emphasized the need to consider watershed-scale environmental processes as central to natural resources management and sustainability. We are realizing that site-scale management of aquatic systems through our existing regulatory framework often compromises mitigation and restoration efforts and fails to look beyond site-scale 'symptoms' at the larger scale ecological processes driving ecological function and sustainability.

The movement toward a watershed-based approach to natural resource management was embraced by the Washington State Legislature in 1998 when it passed Watershed Planning Act (ESHB 2514). The Act authorized local governments to comprehensively plan for and manage water resources at the local, watershed level (with significant state, federal, and tribal participation). Whatcom County is one of several local jurisdictions engaged in watershed planning (the WRIA 1 Watershed Management Plan) and the County is actively integrating watershed management approaches into its land use plans, policies, and regulations.

Consideration of watershed processes is only beginning to be integrated into permit decision-making and federal, state, and local agencies will need time to develop the institutional mechanisms that can accommodate this paradigm shift. Acceptance and implementation of watershed approaches to resource management will grow as our understanding of the relationship between ecosystem processes and resource management evolves and as new methods become available to facilitate regulatory integration.

Jurisdictions such as Whatcom County understand that watershed-scale processes are critical to supporting natural resources and that planning at the watershed scale can streamline protection efforts, and ultimately relieve some of the regulatory burdens facing regulators and permit applicants alike. Whatcom County's draft 2005 Critical Area Ordinance includes provisions for watershed plans to "substitute" for critical area regulations and some land use restrictions, but additional work is needed to allow proponents of capitol projects to take advantage of watershed planning efforts during the permit process.

A Case Study of the Integration Efforts in Whatcom County:

Whatcom County is conducting a landscape-scale assessment of ecosystem processes to support development of the County's new shoreline master program. This landscape analysis examines key watershed processes --such as the movement of water, sediment, heat/light, and nutrients across the landscape --that shape and influence the health of aquatic systems including wetlands, streams, estuaries, and marine waters. Using an approach developed by the Department of Ecology, Whatcom County is:

- identifying key processes within the landscape that are critical to aquatic resources,
- mapping areas on the landscape that are important to the operation and maintenance of these processes,
- assessing how these processes have been altered by human activity, and

- determining restoration and management needs for each watershed.

The results of this analysis will be incorporated into the Shoreline Master Program, the Comprehensive Plan, the critical areas ordinance, salmon recovery efforts, stormwater master planning, shellfish recovery, and other county-wide planning efforts.

Whatcom County has also produced a watershed plan for Bertrand Creek that examines existing conditions within the watershed from environmental and economic perspectives. The plan identifies ecological problems in the basin and proposes strategies to mange water quality, water quantity, and habitat for salmon and other focal species.

The plan framework consists of five elements[1]:

a. **Management Objectives.** The management objectives are clear, concise statements of what the CIDMP is attempting to accomplish.
b. **Performance Measures.** Performance measures are a set of specific, quantifiable standards to determine whether or not a management objective is being met.
c. **Action Plan.** The action plan is the strategic mix of regulatory and non-regulatory programs and projects designed to meet the management objectives. The action plan is designed to produce a quantity, quality, and connectivity of habitat to significantly reduce long-term risk for focal species while still accommodating the economic (and other) needs of people.
d. **Monitoring Strategy.** The monitoring strategy refers to the placement of monitoring equipment and techniques designed to assess progress toward the performance measures.
e. **Adaptive Management.** This portion of the plan identifies the tools and commitment to refine the strategy based on the measured results of implementing the plan.

The watershed-based planning efforts underway in Whatcom County are examples of comprehensive, science-based approaches for determining resource management needs and restoration opportunities at the watershed scale. Restoration measures identified though these efforts have potential to achieve multiple benefits (e.g., actions that improve water quantity and/or water quality will also improve habitat for fish, shellfish and other organisms) and be more sustainable than those that are identified through traditional, site-specific, or permit driven approaches. Watershed-based approaches have other advantages as well:

- They allow the County to make restoration and management decisions across a large area.
- They facilitate the County's ability to develop process-based solutions to ecological problems, and address the fundamental causes of ecological impairment to ensure long-term restoration success.
- They reduce the probability of implementing 'static' restoration measures that may be in conflict with future restoration actions (e.g., armoring banks prevent bank erosion, but limits opportunities to provide shade, cover, channel migration, and other functions).
- They encourage restoration measures that are dynamic and that reflect the variability that is inherent in natural systems.

[1] An implementation framework is not a required product of the HB2514 watershed plans. The Act was amended in 2003 and required planning units that accepted implementation grants to develop detailed implementation plans within one year of receiving an implementation grant.

- They help create a social framework for implementation (i.e. new relationships, trust, and commitment among a diverse group of stakeholders), that ensures increased citizen support, which is essential to long-term success.
- They allow identification of restoration measures that provide the greatest certainty of success (least risk).

Regulatory agencies can look to these watershed planning efforts as reasons to adopt a risk-based approach to permit decision-making. The approach allows regulatory agencies to determine which mitigation opportunities provide the greatest certainty (least risk) for the resource being regulated. Without shortchanging the requirement to avoid and minimize impacts, agencies could provide incentives to applicants who undertake mitigation that:

- Recognizes that landscape-sale processes drive ecological function,
- Addresses (repairs) process alterations that have a direct effect on ecosystem functions,
- Strategically adds to the quantity, quality, and/or connectivity of habitat (within the inherent balance between natural resource needs and stakeholder needs), and
- Is integrated with land use plans, species recovery efforts, and other planning initiatives.

While it is likely that some "conflicts" between planning and the individual requirements of a particular permit will persist and will require policy and/or legislative changes, implementation of this approach will generally not require statutory changes.

Next Steps - Possible options:

- Identify a strategy to export the CIDMP approach to other watersheds within Whatcom County.
    - The current negotiations between the Bertrand WID, NOAA-fisheries, USFWS, and Ecology will serve to identify roles and responsibilities to implement the Bertrand CIDMP.
- Adopt the permitting approach used on SR-539 for use by a local public works project.
- Identify opportunities to achieve broader natural resource management and restoration objectives with mitigation banking
- Test integration of land use plans and landscape based characterizations.
    - Expand integration of land use plans and watershed based characterizations to address broader land use planning objectives.
    - Prioritize restoration efforts within watersheds through landscape based characterizations to address ecosystem process alterations.
    - Approach individual planning efforts (water supply, watershed, transportation, capital facility) in a manner that intentionally accommodates integration with the broader land use plan and watershed characterizations.